Special Issue

Power Systems Stability in Current and Future Scenarios

Message from the Guest Editor

The evolution of power systems poses several challenges in terms of their control and stability. Conventional approaches and analyses might no longer be valid under new scenarios, and therefore, further research, methodologies, and studies are certainly required. Some aspects, which are relevant in both current and future scenarios, include decrease in inertia and frequency stability issues; decrease in system strength and voltage stability issues; decrease in damping in the system and oscillatory stability issues; effects of the control of power converters, either grid-following or grid-forming. This Special Issue invites original research papers and review articles addressing the different aspects of power systems dynamics, control, and stability in current and future scenarios.

Keywords: power systems control; power systems stability; power systems dynamics; frequency stability; voltage stability; oscillatory stability; system inertia; system strength; system damping; power converters; grid-following; grid-forming

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As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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